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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,897	11/26/2003	Michael A. Gallu	81078764 / FMC 1646 PUS	6261
28395	7590	03/04/2005	EXAMINER	
BROOKS KUSHMAN P.C./FGTL 1000 TOWN CENTER 22ND FLOOR SOUTHFIELD, MI 48075-1238			GANDHI, JAYPRAKASH N	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/723,897	<b>Applicant(s)</b> GALLU ET AL.	
	<b>Examiner</b> Jayprakash N Gandhi	<b>Art Unit</b> 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/26/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-- are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuyama et al. (U. S. Patent 5,596,712).

Regarding claims 1 and 13, Tsuyama discloses all the claimed limitation of a computer-implemented method for automatically isolating suspect items, as shown below in the "ABSTRACT".

A computer-implemented method and system for diagnosing and system for diagnosing and analyzing fault information of a product is carried out by (a) creating a fault tree representing causal relations between faults and causes thereof base on information of past faults and information concerning the structure and characteristics of the product, and storing the fault tree in a storage unit, the fault tree having branches allocated with weighting coefficients; (b) inputting new fault information of the product into the computer; (c) searching the fault tree in accordance with the weighting coefficients based on the fault information stored in the storage unit to thereby determine the cause of the fault; (d) generating and outputting information concerning an adjustment or repair of the product suffering from the fault based on the determined cause of the fault as well as the information concerning the structure and the characteristics of the product; (e) supplying information concerning the timing of the occurrence of the fault, symptoms appearing in the fault, the cause of the fault and the adjustment and repair data to a host computer through a data collecting station to thereby construct a database for the fault information; and (f) the quality of the product based on all or a part of information of the database

Regarding claims 2-12 and 14-20, Tsuyama discloses under the "SUMMARY OF THE INVENTION" the claimed invention limitations.

(9) A method for diagnosing and analyzing fault information according to the invention comprises the following steps of:

(10) a) creating a fault tree representing causal relations between faults and causes thereof in the past in a tree structure on the basis of information

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concerning the structure and characteristics of the product and storing the fault tree in a storage unit, wherein the branches of the fault tree are allocated with weighting coefficients, respectively;

(11) b) inputting new fault information of the product into the computer through a terminal apparatus capable of communicating with the computer;

(12) c) responding to the input of the new fault information for searching for the fault tree in accordance with the weighting coefficients on the basis of the fault information stored in the storage unit to thereby determine the cause of the fault of the product;

(13) d) generating by the computer the information concerning adjustment or repair of the product suffering from the fault on the basis of the cause of the fault as well as the information concerning the structure and the characteristics of the product and outputting the information concerning the adjustment or the repair;

(14) e) supplying the information concerning the date of occurrence of the fault of the product, symptoms appearing in the fault, the cause of the fault and the data of the adjustment and the repair to a host computer through a data collecting station to thereby provide a database for the fault information; and

(15) f) statistically analyzing by the computer the quality of the product on the basis of all or a part of information of the database.

(16) A system for diagnosing and analyzing the fault information of products with the aid of a computer comprises the following units:

(17) a) a storage unit for storing a fault tree representing past causal relations between faults and causes thereof in a tree structure together with information concerning structure and characteristics of the product, wherein branches of the fault tree are allocated with weighting coefficients, respectively;

(18) b) a terminal apparatus capable of communicating with the computer for inputting new fault information of the product;

(19) c) means responsive to the input of the new fault information for searching for the fault tree in accordance with the weighting coefficients and on the basis of the fault information stored in the storage means to thereby determine the cause of the fault of the product;

(20) d) a unit for generating information concerning adjustment or repair of the product suffering from the fault on the basis of the cause of the fault as well as information concerning the structure and the characteristics of the product and outputting the information concerning the adjustment or the repair;

(21) e) a unit for supplying information concerning the date of occurrence of the fault of the product, symptoms appearing in the fault, the cause of the fault and the data concerning the adjustment and repair to a host computer through a data collecting station to thereby provide a database for the fault information; and

(22) f) a unit for statistically analyzing the quality of the product on the basis of all or a part of the information stored in the database.

**Conclusion**

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McCown et al., and Crawford et al. disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jayprakash N Gandhi whose telephone number is 571-272-3740. The examiner can normally be reached on 6:30-5:00 (Mon. - Thu.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jayprakash N Gandhi  
Primary Examiner  
Art Unit 2125

jng